WM Renewable Energy, L.L.C.
1001 Fannin, Suite 4000
Houston, TX 77002

State of New Hampshire
Public Utilities Commission
Application Form – Additional Support
Crossroads Landfill

(13) The eligible Class I landfill gas fuel used by WM Renewable Energy, L.L.C. will be landfill methane gas with a gross nameplate generation capacity of 3.2 MW with an initial commercial operation date of March 6, 2009.

The following standard operating protocol measures will be taken to ensure that only the eligible landfill methane gas will be used.

> Landfill methane gas will be recovered via a series of wells drilled into the landfill. The wells will then be connected by a common pipe system that will collect the methane gas and transport it to a nearby compression facility. At the compression facility, the landfill methane gas will then be de-watered, filtered and pressurized; and transported to the generation unit where no other ineligible Biomass Fuel(s) will be allowed to turn engines or turbines to generate renewable electricity.

(20) See attached Maine Air Quality Permit.

(21) WMRE – Crossroads will be interconnected via Madison Electric

(22) Connected via Madison Electric metering system

(23) The facility is pending certification under the non-federal jurisdiction renewable portfolio standard in Connecticut, Massachusetts, and Rhode Island.

(24) Facility output will be verified by ISO-New England via connected metering system

WM Renewable Energy, L.L.C.) AFFIDAVIT ATTESTING
) CONTENT APPLICATION
)
)
COUNTY OF Harris)
)
STATE OF TEXAS)

I, Paul Pabor, do hereby depose and state upon my oath:

1. I hold the position of Vice President for WM Renewable Energy, L.L.C. (Crossroads) gas-to-energy facility.

2. As an authorized agent of WM Renewable Energy, L.L.C. I have personally examined and I am familiar with the information submitted in this affidavit and all attached related Renewable Energy Source Eligibility Application documents.

The foregoing statements made by me are true and correct.

Name: Paul Pabor Date: 3/13/09

SUBSCRIBED AND SWORN TO BEFORE ME THIS 13 day of March, 2009 pursuant to New Hampshire Admin. Code PUC 2500 Rules.

Name: Jennifer Hickerson Date: 3.13.09

Jennifer Hickerson
Notary Public
My commission expires:

JENNIFER HICKERSON
MY COMMISSION EXPIRES
April 19, 2013

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JUN 1 3 2005

JOHN ELIAS BALDACCI
GOVERNOR

DAWN R. GALLAGHER
COMMISSIONER

Waste Management Disposal Services of Maine
Somerset County
Norridgewock, Maine
A-816-70-A-I

Departmental
Findings of Fact and Order
Part 70 Air Emission License

After review of the Initial Part 70 License application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, Section 344 and Section 590, the Department finds the following facts:

I. Registration

A. Introduction

FACILITY	Waste Management Disposal Services of Maine (WMDSM)
LICENSE NUMBER	A-816-70-A-I
LICENSE TYPE	Initial Part 70 License
NAIC CODES	562212
NATURE OF BUSINESS	Solid Waste Landfill
FACILITY LOCATION	Norridgewock, Maine
DATE OF LICENSE ISSUANCE	May 31, 2005
LICENSE EXPIRATION DATE	May 31, 2010

B. Emission Equipment

WMDSM is authorized to operate the following air emission units:

Process Equipment

Equipment	Maximum Design Capacity	Maximum Process Flow Rate	Stack #
Landfill Gas Oxidation Unit #1	60.0 MMBtu/hr	2,000 SCFM	#1
Landfill Gas Oxidation Unit #2	105.0 MMBtu/hr	3,500 SCFM	#2
Landfill Gas Oxidation Unit #3	75.0 MMBtu/hr	2,500 SCFM	#3

Emergency Equipment

Equipment	Max. Capacity (MMBtu/hr)	Fuel, %S
Generator 1*	< 3.0	Diesel fuel, 0.05% S
Generator 2*	< 3.0	Diesel fuel, 0.05% S
Generator 3*	< 3.0	Diesel fuel, 0.05% S

*Listed for informational purposes only

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 764-1507

web site: www.state.me.us/dep

Landfill Characteristics

Section	Liner	Estimated Filling Dates	Status	Final Cover
MSW	No	1976-1989	Closed	Soil/Membrane
1-6, 10	Yes	1986-1999	Closed	Soil/Membrane
7	Yes	1993-1995	Closed	Temp. Membrane
Asbestos	No	1994-1992	Closed	Soil/Membrane
8 Expansion	Yes	2003-2013	Construction*	Future
9	Yes	2001-2003	Active (nearly full)	Soil/Waste/ Temp. Cover
11	Yes	1998-2002	Closed	Temp. Membrane
12	Yes	2003-2004	Active	Future

* Construction of the Phase 8 Expansion involves the excavation and relocation of the existing MSW and Asbestos Landfills to a new lined landfill. The new landfill area, referred to as Phase 8, encompasses the areas previously occupied by the MSW and Asbestos Landfills as well as adjacent areas.

WMDSM has additional activities not listed in the emission equipment table above, that are insignificant, but may be found in the application submitted in February 2003.

C. Application Classification

WMDSM operates a landfill with a design capacity that exceeds 2.5 million cubic meters. Therefore, WMDSM is required to obtain a Part 70 License per 40 CFR §60.752(b) and section 1(C)(2) of Chapter 140 of the Department's regulations. This license is considered to be an Initial Part 70 License issued under Chapter 140 of the Department's regulations for a Part 70 source.

II. EMISSION UNIT DESCRIPTION

A. Solid Waste Landfill

WMDSM operates and maintains a municipal solid waste landfill that is subject to New Source Performance Standards (NSPS) Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills. Subpart WWW requires that landfills with a design capacity in excess of 2.5 million cubic meters calculate a Non-Methane Organic Compound (NMOC) emission rate. If the annual NMOC

emission rate is found to be greater than 50 megagrams per year, the owner of the landfill is required to install a collection and control system that complies with Subpart WWW.

The process of determining the NMOC emission rate is prescribed by Subpart WWW and is a tiered analysis. In Tier 1 of the analysis, WMDSM calculated NMOC emissions based on a first order decay equation with default parameters and site specific waste values. WMDSM used a model developed by the EPA entitled "Landfill Gas Emissions Model (LandGEM), Version 2.01". The Tier I analysis indicated that the uncontrolled NMOC emissions from the landfill would exceed 50 megagrams per year. WMDSM therefore decided to proceed to a Tier 2 analysis.

Using a Tier 2 analysis allows for the collection of site-specific NMOC concentrations to be included in the LandGEM model. WMDSM conducted Tier 2 sampling in September 2002. Based on the sampling information, the Tier 2 analysis showed an NMOC emission rate of 10.3 megagrams per year prior to control by the flare system. (Note that these emissions are reduced by approximately 98% by the flare). Because both controlled and uncontrolled emissions rates were below the 50 megagram threshold in Subpart WWW, WMDSM did not elect to continue to a Tier 3 analysis.

Since WMDSM's calculated NMOC emissions are less than 50 megagrams per year, this facility is not required to install a collection and control system that complies with Subpart WWW. However, WMDSM has voluntarily installed a collection and control system that is designed to meet the criteria set forth in Subpart WWW (which is considered BACT for the future 75.0 MMBtu/hr flare and BPT for the existing 60.0 and 105.0 MMBtu/hr flares). This system consists of a gas collection system and three flares. The flares are designed to achieve 98% overall destruction of total hydrocarbons and use a small amount of propane as a pilot light. WMDSM is also utilizing up to 20 passive wellhead flares, as necessary. The 20 wellhead flares each have a heat input less than 1.0 MMBtu/hr and are considered insignificant activities.

Streamlining

Opacity

WMDSM accepts streamlining for opacity requirements. Chapter 101 of the Department's regulations and Best Practical Treatment (BPT) requirements are applicable. The Best Practical Treatment (BPT) opacity limits are more stringent. Therefore, only the more stringent BPT opacity limits are included in this license.

Periodic Monitoring

Records of the design capacity report.

The current amount of solid waste in-place.

The year-by-year waste acceptance rate.

NMOC emissions reports.

Times of operation during which the main flame of the flare units was absent.

Records of the hours of operation of each flare.

Records of routine and non-routine maintenance performed on each oxidizer unit.

Purchase records for the auxiliary propane fuel indicating the quantity of fuel purchased and the heat content of the fuel.

12-month rolling total of individual and total HAP emissions.

B. Insignificant Emissions Units

Insignificant Emissions Units include internal combustion engines having a heat input less than 3.0 MMBtu/hr firing 0.05% sulfur or less fuel oil. These are mentioned for informational purposes only.

C. Fugitive Emissions

Fugitive particulate matter sources at WMDSM includes material stockpiles and roadways.

Periodic Monitoring

Based on best management practices, fugitive emission sources should not exceed the opacity limits. Therefore, periodic monitoring for opacity in the form of visible emission is not required. However, neither the EPA nor the DEP is precluded from performing its own testing and may take enforcement action for any violations discovered.

D. Annual Emission

WMDSM has the following annual emissions, based on 4,900 standard cubic feet per minute of gas through the stacks for 8,760 hours per year:

(12 month rolling total)

Total Annual Emissions from the flares

(not an annual limit, used only to estimate the annual license fee)

Pollutant	Tons/Year
PM	54.7
PM_{10}	54.7
SO_2	244.7
NO_x	43.8
CO	238.2
VOC	0.9
total HAP	9.9

III. AIR QUALITY ANALYSIS

A. Overview

Screening modeling was performed to show that the emissions from WMDSM, in conjunction with other sources, would not cause or contribute to violations of Maine Ambient Air Quality Standards (MAAQS) for SO_2, PM_{10}, NO_2 and CO or to Class I or Class II increments for SO_2, PM_{10} and NO_2.

Since WMDSM is a source that was built after the 1977 (SO_2 and PM_{10}) and 1987 (NO_2) baseline years, the emissions are totally increment consuming for all pollutants. Therefore, a Class II SO_2, PM_{10} and NO_2 increment analysis was performed.

Based upon the distance of the source to any Class I area and the magnitude of emissions increase, the affected Federal Land Managers (FLMs) and MEDEP-BAQ have determined that an evaluation of increment, visibility and dry/wet deposition is not required.

B. Model Inputs

The SCREEN3 model was used to address standards in simple, intermediate and complex terrain, i.e. areas where terrain elevations exceed the flare-top elevations. Since the flares are not located on or near a building, neither a GEP nor a cavity analysis were required.

All modeling was performed in accordance with all applicable requirements of the Maine Department of Environmental Protection, Bureau of Air Quality (MEDEP-BAQ) and the United States Environmental Protection Agency (USEPA).

Point source parameters used in the modeling for WMDSM are listed in Table III-1. UTM coordinates are based on North American Datum 1983 (NAD83).

Table III-1. Flare Parameters

Facility/Source	Base Elevation (m)	Flare Height (m)	Effective Release Height (m)	UTM E (km)	UTM N (km)
CURRENT					
WMDSM					
• Flare #1	79.24	8.53	15.21	433.190	4951.200
• Flare #2	76.20	12.19	20.77	432.490	4951.165
• Flare #3	76.20	8.53	15.96	216.235	4511.840

The emission parameters for WMDSM for MAAQS and increment modeling are listed in Table III-2. The emission parameters are based on the maximum license allowed configuration. For the purpose of determining NO_2 and PM_{10} impacts, all NO_x and PM emissions were conservatively assumed to convert to NO_2 and PM_{10}, respectively.

Table III-2. Emission Parameters

Facility/Source	Averaging Period(s)	SO_2 (g/s)	PM_{10} (g/s)	NO_2 (g/s)	CO (g/s)	Total Heat Release (MMBTU/hr)
CURRENT						
WMDSM						
• Flare #1	All	2.87	0.64	0.51	2.80	60.00
• Flare #2	All	5.03	1.12	0.90	4.90	105.00
• Flare #3	All	3.59	0.80	0.64	3.50	75.00

C. Applicant's modeled impacts.

Simple and complex terrain SCREEN3 modeling was performed for the maximum licensed allowed scenario. Both simple and complex terrain impacts were conservatively estimated by adding the maximum impacts from the three flares, regardless of receptor location/elevation.

The SCREEN3 model results for WMDSM alone in simple and complex terrain are shown in Tables III-3. Maximum predicted impacts that exceed the respective significance level are indicated in boldface type. No further analysis was required for pollutant/terrain combinations that did not exceed their respective significance levels.

Table III-3. Maximum SCREEN-3 Simple and Complex Terrain Impacts from WMDSM Alone

Pollutant	Averaging Period	Maximum Simple Impact ($\mu g/m^3$)	Maximum Complex Impact ($\mu g/m^3$)	Class II Significance Level ($\mu g/m^3$)
SO_2	3-hour	**38.19**	16.35	**25**
	24-hour	**16.97**	**7.27**	**5**
	Annual	**3.39**	**1.45**	**1**
PM_{10}	24-hour	3.80	1.63	**5**
	Annual	0.76	0.33	**1**
NO_2	Annual	0.61	0.26	**1**
CO	1-hour	41.32	17.69	**2,000**
	8-hour	28.92	12.38	**500**

D. Combined Source Modeling

Because modeled impacts from WMDSM were greater than significance levels for 3-hour, 24-hour and annual SO_2, other sources not explicitly included in the modeling analysis must be included by using representative background concentrations for the area. Background concentrations used were based on conservative Central Maine rural background monitoring data for SO_2 from data collected in the Dedham (Bald Mountain) area. These background values are listed in Table III-4.

TABLE III-4 Background Concentrations ($\mu g/m^3$)

Pollutant	Averaging Period	Background
SO_2	3-hour	52
	24-hour	29
	Annual	5

As 3-hour, 24-hour and annual SO_2 impacts from WMDSM were significant, MEDEP examined other sources whose impacts would be significant in or near WMDSM's significant impact area. Due to the applicant's location, extent of the significant impact area and nearby source's emissions, MEDEP has determined that no other sources would be considered for combined source modeling.

For all pollutant averaging periods, the higher of the maximum modeled impacts from either simple or complex terrain were added with conservative background concentrations to demonstrate compliance with MAAQS, as shown in Table III-5. Because all impacts using this method meet MAAQS, no further modeling analyses need to be performed.

TABLE III-5 Maximum Combined Source Impacts from WMDSM ($\mu g/m^3$)

Pollutant	Averaging Period	Maximum Predicted Impact ($\mu g/m^3$)	Back-ground ($\mu g/m^3$)	Max Total Impact ($\mu g/m^3$)	MAAQS ($\mu g/m^3$)
SO_2	3-hour	38.19	52	90.19	1150
	24-hour	16.97	29	45.97	230
	Annual	3.39	5	8.39	57

E. Increment

WMDSM's maximum Class II increment impacts were predicted using SCREEN3 modeling in both simple terrain and complex terrain. For addressing increment impacts in intermediate terrain (i.e., terrain above stack-top and below plume centerline), the higher of the two increment impacts was chosen. In addition, since WMDSM is a source that was built after the 1977 (SO_2 and PM_{10}) and 1987 (NO_2) baseline years, the emissions are considered to be totally increment consuming for all pollutants and no baseline credit was allowed to be taken.

Results of the single source Class II increment analyses are shown in TABLE III-6. All averaging period predicted increment impacts were below maximum allowable Class II increments. It had been determined in a previous analysis by MEDEP that no other local area or mobile sources consume NO_2 increment. Since there has been no significant increase in population or vehicle miles traveled (VMT) since the previous determination, no combined source increment analysis was performed. Because impacts using this method meet maximum allowable Class II increments, no further Class II increment modeling for WMDSM needs to be performed.

TABLE III-6 Class II Increment Consumption – WMDSM Alone

Pollutant	Averaging Period	Maximum Complex Impact ($\mu g/m^3$)	Class II Increment Standard ($\mu g/m^3$)
SO_2	3-hour	38.19	512
	24-hour	16.97	91
	Annual	3.39	20
PM_{10}	24-hour	3.80	30
	Annual	0.76	17
NO_2	Annual	0.61	25

F. Class I Impacts

Based upon the distance of the source to any Class I area and the magnitude of emissions increase, the affected Federal Land Managers (FLMs) and MEDEP-BAQ have determined that an evaluation of increment, visibility and dry/wet deposition is not required.

G. Summary

It has been demonstrated that the applicant's facility, in its proposed configuration, will not cause or contribute to a violation of any SO_2, PM_{10}, NO_2 or CO averaging period MAAQS. It has also been demonstrated that the applicant's facility in its proposed configuration will not cause or contribute to a violation of any SO_2, PM_{10}, or NO_2 averaging period maximum allowable Class II increments.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-816-70-A-I pursuant to MEDEP Chapter 140 and the preconstruction permitting requirements of MEDEP Chapter 115 and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to WMDSM pursuant to the Department's preconstruction permitting requirements in Chapters 108 or 115 have been incorporated into this Part 70 license, except for such conditions that MEDEP has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such, the conditions in this license supercede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in Chapter 115 for making such changes and pursuant to the applicable requirements in Chapter 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

STANDARD STATEMENTS

(1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both; [MEDEP Chapter 140]

(2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [MEDEP Chapter 140]

(3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [MEDEP Chapter 140]

(4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license; [MEDEP Chapter 140]

(5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 140]

(6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or

B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or effect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the applicant.

	SOURCE	CITATION	DESCRIPTION	BASIS FOR DETERMINATION
A	Oxidation Units #1, #2 and #3	Chapter 104	Incinerator Particulate Emission Standard	The Flares are not considered incinerators.
B	Facility	Chapter 134	VOC RACT	Licensed VOC emissions less than 40 ton/year.
C	Oxidation Units #1, #2 and #3, Passive Flares	Chapter 102	Open Burning	The Oxidation Units and Passive Flares are not considered open burning within the prohibition of Chapter 102.

[MEDEP Chapter 140]

(7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:

A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to Chapter 140;

B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;

C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or

D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[MEDEP Chapter 140]

(8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license. [MEDEP Chapter 140]

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (Title 38 MRSA §347-C);

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140; [MEDEP Chapter 140]

(3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request; [MEDEP Chapter 140]
Enforceable by State-only

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.

(5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions; [MEDEP Chapter 140]
Enforceable by State-only

(6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license; [MEDEP Chapter 140]

(7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the

Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [MEDEP Chapter 140]

(8) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing under circumstances representative of the facility's normal process and operating conditions:

1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;

2. to demonstrate compliance with the applicable emission standards; or

3. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[MEDEP Chapter 140] **Enforceable by State-only**

(9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to

the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[MEDEP Chapter 140] **Enforceable by State-only**

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 MRSA § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report.

[MEDEP Chapter 140]

(11) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods,

at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 140]

(12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [MEDEP Chapter 140]

(13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:

(a) The identification of each term or condition of the Part 70 license that is the basis of the certification;

(b) The compliance status;

(c) Whether compliance was continuous or intermittent;

(d) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and

(e) Such other facts as the Department may require to determine the compliance status of the source;

[MEDEP Chapter 140]

SPECIAL CONDITIONS

(14) WMDSM is subject to the requirements of 40 CFR Part 60, Subparts A and WWW – Standards of Performance for Municipal Solid Waste Landfills that apply to landfills with a design capacity greater than 2.5 million cubic meters and NMOC emissions less than 50 megagrams/year.
[40 CFR Part 60, Subpart WWW]

(15) WMDSM shall submit an annual NMOC emission report to the Department and EPA. If the estimated NMOC emission rate as reported in the annual report is less than 50 megagrams per year in each of the next 5 consecutive years, WMDSM may elect to submit an estimate of the NMOC emission rate for the next 5 year period in lieu of the annual report. These reports shall comply with the requirements of 40 CFR Part 60 §60.757(b)(1) and (2).
[40 CFR Part 60, Subpart WWW]

(16) WMDSM shall retest the site-specific NMOC concentration every 5 years using the methods specified in 40 CFR Part 60 §60.754(a)(3).
[40 CFR Part 60, Subpart WWW]

(17) WMDSM shall keep readily accessible, on-site records of the following:

1. The design capacity report which demonstrated that the landfill had a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters.
2. The current amount of solid waste in-place.
3. The year-by-year waste acceptance rate.

Off site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
[40 CFR Part 60 §60.758(a)]

(18) WMDSM shall operate and maintain a landfill gas collection and control system except for periods of construction, maintenance or malfunctions on the system. [MEDEP Chapter 140, BPT] **Enforceable by State-only**

(19) WMDSM shall not exceed an emission limit of 9.9 tons per year for all HAPs combined based on a 12-month rolling total. HAP emissions shall be calculated based on EPA's AP-42, "Compilation of Air Pollutant Emission Factors" for landfill gas emissions or site-specific test data, the monthly totalized volume of landfill gas extracted, and the destruction efficiency of the oxidizer unit. [MEDEP Chapter 140, BPT]

(20) Landfill Gas Flares (Oxidation Units) [MEDEP Chapter 140, BPT]

A. Oxidation Unit #1 has a maximum design capacity of 60.0 MMBtu/hr and shall not exceed the following emissions.

Oxidation Unit #1 Emission Limits

Pollutant	lb/MMBtu	lb/hr
PM	0.085	5.10
PM_{10}	n/a	5.10
SO_2	n/a	22.80
NO_X	n/a	4.08
CO	n/a	22.20
VOC	n/a	0.09
HAP	n/a	0.04

B. Oxidation Unit #2 has a maximum design capacity of 105.0 MMBtu/hr and shall not exceed the following emissions.

Oxidation Unit #2 Emission Limits

Pollutant	lb/MMBtu	lb/hr
PM	0.085	8.93
PM_{10}	n/a	8.93
SO_2	n/a	39.90
NO_X	n/a	7.14
CO	n/a	38.85
VOC	n/a	0.15
HAP	n/a	0.06

C. Oxidation Unit #3 has a maximum design capacity of 75.0 MMBtu/hr and shall not exceed the following emissions.

Oxidation Unit #3 Emission Limits

Pollutant	lb/MMBtu	lb/hr
PM	0.085	6.38
PM_{10}	n/a	6.38
SO_2	n/a	28.50
NO_X	n/a	5.10
CO	n/a	27.75
VOC	n/a	0.11
HAP	n/a	0.05

D. Visible emissions from each oxidation unit shall not exceed an opacity of 20 percent on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

E. The landfill gas flares shall be operated with a flame present at all times except during start-up, shut-down, malfunction or other periods not to exceed one (1) hour.

(21) For Compliance Assurance, WMDSM shall comply with the following [MEDEP Chapter 140, BPT]:

A. WMDSM shall monitor for the continuous presence of a flame at each oxidizer unit's main flame with a thermocouple. WMDSM shall maintain records of all periods of operation during which the main flame of the flare was absent.

B. WMDSM shall monitor landfill gas flow rate to each oxidizer unit with a thermal mass flow meter and shall record gas flow with a digital totalizer and a continuous chart recorder. The gas flow rate to each oxidizer shall be measured and recorded at least every 15 minutes.

The thermal mass flow meter must record accurate and reliable data. If the monitor is recording accurate and reliable data less than 98% of the source-operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.

C. The combined total throughput of landfill gas through units #1, #2 and #3 shall not exceed 4,900 scfm. Compliance is based on flare gas digital totalizers documenting the combined throughput of landfill gas through the three flares calculated on a monthly average basis.

D. WMDSM shall use an hour meter to display the cumulative number of hours of each flare system operation and shall maintain a log recording hours of operation.

E. WMDSM shall operate each oxidation unit within the equipment parameter boundaries established under 40 CFR 60.18.

F. WMDSM shall maintain records indicating all routine and non-routine maintenance on each oxidizer unit.

G. WMDSM shall maintain purchase records for the auxiliary propane fuel indicating the quantity of fuel purchased and the heat content of the fuel.

(22) In lieu of the standard conditions (8) above regarding stack testing, which is not applicable to this emission source, WMDSM shall make a determination within 180 days of start up of the flare systems (oxidation units #1, #2 and #3) that the actual exit velocity of the gas from each system is less than the maximum velocity allowed under 40 CFR 60.18. WMDSM shall submit a written report to the Department within thirty (30) days from completion of this determination. The report shall include all visible emission readings, heat content determination, flow rate measurements, and exit velocity determinations made during the determination as specified in 40 CFR Part 60.18.

(23) **Operational Flexibility** [MEDEP Chapter 140, BPT]

WMDSM may expand beyond the currently permitted design capacity without an amendment to this Part 70 Air Emission License provided all of the following are met:

A. WMDSM submits to DEP and EPA an amended Design Capacity Report and a report identifying the recalculated NMOC emission rates for the next 5 years within 90 days after commencing construction on the permitted expansion;

B. The recalculated NMOC emission rates remain less than 50 megagrams per year; and

C. WMDSM continues to meet the emissions limits set forth in this License.

(24) Visible emissions from fugitive emission sources (including stockpiles and roadways) shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance is determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

(25) **Record-Keeping** [MEDEP Chapter 140, BPT and 40 CFR Part 60 Subpart WWW]

For all record keeping required by this license, the licensee shall maintain records of the most current six-year period.

A. The following **periodic** records shall be kept:
   1. The design capacity report which demonstrated that the landfill had a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters.
   2. The current amount of solid waste in-place at the end of the semiannual period.
   3. The year-by-year waste acceptance rate.
   4. The NMOC emission reports required by Special Condition 15.
   5. Any times of operation during which the main flame of the flare units were absent.
   6. Hours of operation of each flare.
   7. Routine and non-routine maintenance performed on each oxidizer unit.
   8. Purchase records for the auxiliary propane fuel indicating the quantity of fuel purchased and the heat content of the fuel.
   9. Monthly HAP individual and total emissions as well as the 12-month rolling total of individual and total HAP emissions.

B. The following **parameter monitor** records shall be kept.
   1. Landfill gas flow rate to each oxidizer unit with a thermal mass flow meter. WMDSM shall document operational time to meet Condition 21(B).

(26) **Semiannual Reporting**

The licensee shall submit semiannual reports every six months to the Bureau of Air Quality. The semiannual reports are due on July 31st and January 31st of each year with the initial semiannual report due **July 31, 2005**. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date.

A. Each semiannual report shall include a summary of the periodic monitoring required by this license.

B. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

[40 CFR Part 70]

(27) **Annual Compliance Certification**

WMDSM shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The initial annual compliance certification is due January 31 of each year with the initial annual certification due **January 31, 2006**. The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors. [MEDEP Chapter 140]

(28) **A. Annual Emission Statement**

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department;

or

2) A written emission statement containing the information required in MEDEP Chapter 137. Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted no later than July 1 or as otherwise specified in Chapter 137.

B. Toxic Air Pollutants Emission Statement

The licensee shall report for HAP emissions, in accordance with MEDEP Chapter 137, the information necessary to accurately update the State's toxic air pollutants emission inventory by means of a written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions on the Air Toxics emissions inventory portion should be directed to:

Attn: Toxics Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

(29) The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
Chapter 102*	Open Burning	-
Chapter 109	Emergency Episode Regulation	-
Chapter 110	Ambient Air Quality Standard	-
Chapter 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. Section 3 §585-B, sub-§5	Reduce Mercury Use and Emissions	Enforceable by State-only

* As noted above, however, Chapter 102 does not apply to the Oxidation Units or Passive Flares.

(30) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. An example of such units include refrigerators and any size air conditioner that contain CFCs.
[40 CFR, Part 82, Subpart F]

(31) **National Emission Standards for Asbestos**

The licensee shall comply with the applicable requirements of 40 CFR Sections 61.151 and 61.154 regarding active and inactive asbestos waste disposal sites.
[40 CFR Part 61]

(32) **Certification by a Responsible Official**
All reports (including semiannual reports and annual compliance certifications) required by this license to be submitted to the Bureau of Air Quality must be signed by a responsible official.
[40 CFR Part 70]

(33) WMDSM shall pay the annual air emission license fee within 30 days of **October 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.
[38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS 31st DAY OF May 2005.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

By: James P. Brooks for _____
DAWN R. GALLAGHER, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of Part 70 application February 6, 2003
Date of Part 70 application acceptance February 27, 2003

Date filed with Board of Environmental Protection _____

This Order prepared by Mark E. Roberts, Bureau of Air Quality

FILED
JUN - 8 2005
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE